

MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE.

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INTRODUCTION.

The MONTHLY WEATHER REVIEW for October, 1900, is based on reports from about 3,099 stations furnished by employees and voluntary observers, classified as follows: regular stations of the Weather Bureau, 159; West Indian service stations, 13; special river stations, 132; special rainfall stations, 48; voluntary observers of the Weather Bureau, 2,562; Army post hospital reports, 18; United States Life-Saving Service, 9; Southern Pacific Railway Company, 96; Canadian Meteorological Service, 32; Mexican Telegraph Service, 20; Mexican voluntary stations, 7; Mexican Telegraph Company, 3. International simultaneous observations are received from a few stations and used, together with trustworthy newspaper extracts and special reports.

Special acknowledgment is made of the hearty cooperation of Prof. R. F. Stupart, Director of the Meteorological Service of the Dominion of Canada; Mr. Curtis J. Lyons, Meteorologist to the Hawaiian Government Survey, Honolulu; Señor Manuel E. Pastrana, Director of the Central Meteorological and Magnetic Observatory of Mexico; Camilo A. Gonzales, Director-General of Mexican Telegraphs; Mr. Maxwell Hall, Govern-

ment Meteorologist, Kingston, Jamaica; Capt. S. I. Kimball, Superintendent of the United States Life-Saving Service; and Commander Chapman C. Todd, Hydrographer, United States Navy.

Attention is called to the fact that the clocks and self-registers at regular Weather Bureau stations are all set to seventy-fifth meridian or eastern standard time, which is exactly five hours behind Greenwich time; as far as practicable, only this standard of time is used in the text of the REVIEW, since all Weather Bureau observations are required to be taken and recorded by it. The standards used by the public in the United States and Canada and by the voluntary observers are believed to conform generally to the modern international system of standard meridians, one hour apart, beginning with Greenwich. The Hawaiian standard meridian is $157^{\circ} 30'$ or $10^h 30^m$ west of Greenwich. Records of miscellaneous phenomena that are reported occasionally in other standards of time by voluntary observers or newspaper correspondents are sometimes corrected to agree with the eastern standard; otherwise, the local standard is mentioned.

FORECASTS AND WARNINGS.

By Prof. E. B. GARRIOTT, in charge of Forecast Division.

The first snow of the season for the eastern part of the country fell in the Adirondack Mountains during the night of the 16th. On the 1st and 2d a severe snowstorm occurred in western Montana. Five to 15 inches of snow fell in the mountain districts of northern Colorado on the 6th, and a snowstorm in the mountains was discernible from Denver, Colo. About the close of the month exceptionally heavy snow was reported along the Alaska and British Columbia coasts.

The first general frost of the season in central and northern districts east of the Mississippi River occurred the night of the 17-18th. The occurrence of this frost was covered by the regular forecasts and by the following special warning which was issued on the morning of the 17th and telegraphed throughout the districts referred to:

Heavy frost will occur to-night from the Ohio Valley and eastern Tennessee over the Atlantic States from Maine to northern North Carolina.

In the upper Mississippi River and tributaries high stages of water prevailed during a great part of the month.

Severe local storms occurred in northern Texas on the 21st.

The most important general storm of the month appeared on the south Atlantic coast on the 12th. From the 13th to the 15th this storm advanced from Hatteras to the Gulf of St. Lawrence attended by gales of marked severity, and during the 16th passed to the north of Newfoundland. On the 16th a disturbance appeared over Nova Scotia, and during the succeeding forty-eight hours this storm moved northeastward over Newfoundland attended by strong gales.

The usual warnings were issued in connection with these storms, and in addition the following special warning was telegraphed on the morning of the 13th to Atlantic coast ports from Portland, Me., to Norfolk, Va.:

Storm off Hatteras will move north and northeast and cause shifting gales beginning from northeast along the transatlantic steamship routes from the American coast to the Banks of Newfoundland, Sunday. Publish on morning map.

SPECIAL FORECASTS.

Special local forecasts for periods greater than thirty-six hours were issued by request of the managers of "street fairs" at Montgomery, Ala., and Fort Smith, Ark., and the value of the forecasts to the interests involved has been acknowledged by the local press. In the case of the Elks Street Fair held at Springfield, Mo., September 3 to 6, inclusive, the executive committee of the fair expressed in a set of resolutions their appreciation of the accuracy and value of the very successful long range forecasts which were furnished by the Weather Bureau.

CHICAGO FORECAST DISTRICT.

The month of October was exceptionally mild throughout the district, and no severe storm crossed the Lake region. As a rule the wind force and direction were correctly forecast.—*H. J. Cox, Professor.*